

The invention concerns a complementary BiCMOS semiconductor device

- comprising a substrate of a first conductivity type and a number of active regions which are provided therein and which are delimited in the lateral direction by shallow field insulation regions,

- in which vertical npn-bipolar transistors with an epitaxial base are arranged in a first subnumber of the active regions and vertical pnp-bipolar transistors with an epitaxial base are arranged in a second subnumber of the active regions,

- wherein either one transistor type or both transistor types have both a collector region and also a collector contact region in one and the same respective active region.

To improve the high-frequency properties exclusively in a first transistor type in which the conductivity type of the substrate is identical to that of the collector region an insulation doping region is provided between the collector region and the substrate, the insulation doping region being adapted to provide electrical insulation of the collector and the substrate. In addition the collector region either of the first transistor type or both transistor types is laterally delimited by the shallow field insulation regions.